

CLAIMS

1. A method of screening a compound or its salt, which promotes or inhibits a function of an orphan receptor protein, comprising:

(i) measuring a cell stimulating activity to be measured when test compound (a) is brought in contact with cells capable of expressing an orphan receptor or its cell membrane fractions, and a cell stimulating activity to be measured when test compound (a) is brought in contact with cells which are not capable of expressing the orphan receptor or its cell membrane fractions, respectively,

(ii) comparing the cell stimulating activities thus measured for each test compound (a), to identify compounds having an agonist activity,

(iii) ① comparing a cell stimulating activity to be measured when a ligand candidate compound which is selected by considering a common structure of said compounds having an agonist activity is brought in contact with said cells capable of expressing the orphan receptor or its cell membrane fractions, and a cell stimulating activity to be measured when test compound (b) is brought in contact with said cells capable of expressing the orphan receptor or its cell membrane fractions, and ② measuring amount of specific binding between said orphan receptor protein and test compound (b).

2. A compound or a salt thereof obtainable by the screening method according to claim 1.

3. A method of identifying a ligand or its subtypes, comprising:

(i) measuring a cell stimulating activity to be measured when test compound (a) is brought in contact with cells capable of expressing an orphan receptor or

its cell membrane fractions, and a cell stimulating activity to be measured when test compound (a) is brought in contact with cells which are not capable of expressing the orphan receptor or its cell membrane fractions, respectively,

(ii) comparing the cell stimulating activities thus measured for each test compound (a), to identify compounds having an agonist activity, and

(iii) measuring amount of specific binding between said orphan receptor protein and a ligand candidate compound which is selected by considering a common structure of the compounds having an agonist activity.